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## B2C E-Commerce in the Banking Industry: The Adoption Commercial Banks in Jordan

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### Abstract

This study aimed to identify the adoption of B2C E-commerce in the commercial banks in Jordan. The importance this study came from a scientific and academically analysis the adoption of B2C E-commerce in the Jordanian banks. A survey research design sought information from various banks in Jordan to examine and analyze the benefits and challenges they face in implementing E-commerce products and services. The community total to study consisted from the banks that listed on the Amman Stock Exchange, the (SPSS) used to the analysis of a sample of (185) individuals, the study found: that a strong relation between the B2B E-commerce Services and the adoption of the Jordanian commercial banks. The study recommendations the recommends the spreading the culture of E-commerce and support of senior management at the Jordanian banks.

**Key words:** B2C; Commercial banks; E-commerce; Jordan

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### INTRODUCTION

Electronic commerce (E-commerce) is apprehensive with conducting business transactions electronically using information and communication technologies (Iacovou & Izak Benbasat, 1995). The commercial activity that

include the dealing with the trading of merchandises and services and directly or indirectly with the others related business actions over the internet (Peterson et al., 2011).

These actions comprise the communications of information processes, the management of payment processes, the trading and negotiating of financial tools, and the management of transportations of the financial assets (Heng, 2003), E-commerce is a portion of e-business and its goal is to generate income through the various set of actions based on buying and selling principles.

Electronic commerce (E-commerce) is worked depend on business transactions electronically using information and communication technologies (Iacovou & Izak Benbasat, 1995). It is not just limited to buying and selling over the Internet network, but it is also worked by transferring or exchanging products services and or information via computer networks, including the Internet, Extranet and Intranet (Turban, McKay, Marshall, Lee, & Viehland, 2006). Their found major types to transaction in electronic commerce B2C Business to Consumer and B2B Business to Business.

### 1. ELECTRONIC COMMERCE IN THE BANKING INDUSTRY

In the banking industry many activity conduct using internet to support customer with optimal support services because when using services save time and money and more. The banking industry as a fast developing industry is facing the challenges of electronic commerce business. some changes according to the banking needs have been adopted. An efficient way to do e-business is to manage Web application of the assets that present and support entity's core business processes, counting the web applications and databases in the information technology environment. Although a important investment might be expected to cover the requirements of dominant, ease of use and secure technology, there are many applications

on the market supporting e-business technology fundamentals and products needed to build e-business solutions (Vedran & Bato, 2003). The produces the good and services supported to customer depend on application tools through E-commerce. The application tools in EC enhanced business processes in development manner; the operations function is that portion of the organization that is apprehensive with the management of the business process. The satisfaction to customers in E-commerce when operation of order fulfillment and delivery is done. Order fulfilment and delivery is main operation of every business as they are the means by which an organization. An organization can be considered to have e-operations if it uses information technologies (ICT) in the management of its order fulfillment and delivery processes (Fraser, Fraser, & McDonald, 2000). In E-Business have three primary processes firstly processes depend on customer concentrate, which include processing of customers' purchase orders, payments and selling over the Internet, marketing efforts and promotional and customer support, among others secondly process include production processes such as ordering, procurement and replacement of stock, processing of payment; electronic connect with suppliers; and production control processes, among other, Thirdly processes include services for employee, recruiting, teaching, internal sharing information, conferencing using online video, application enhance data flow between production and sales forces to develop sales force efficiency (Peterson et al., 2011). Workgroup communications and electronic publishing of internal business information are likewise made more efficient (Wenninger, 2000).

## 2. E-COMMERCE

Electronic commerce (E-commerce) is related to Execute business transactions in electronic manner using information and communication technologies (Iacovou & Izak Benbasat, 1995). It refers to exchange information or product/services via internet, extranet and intranet using computer networks so it not refers to just buying and selling over the Internet (Turban, McKay, Marshall, Lee, & Viehland, 2006).

In recently day electronic commerce (E-commerce) includes an extensive range of processes and business activities, from e-banking to e-logistics. The ever growing dependence of modern industries on electronically enabled business processes gave impetus to the growth and development of supporting systems, including backend systems, applications and middleware (Chaudhury et al., 2002).

In commercial banks to Achieving competitive advantage through productivity gains, transaction cost reduction and customer service improvement it uses Electronic commerce (EC) technologies.

## 3. E-COMMERCE SERVICES AND PRODUCTS

E-commerce products and services are several types such as Electronic Data Interchange (EDI). Automatic Teller Machines (ATMs). Electronic Fund Transfer (ETF), mobile banking, online banking, and telecommunication services. It uses to transfer transaction without necessarily go to bank by physical contact (Peterson et al., 2011).

Credit card is one of the few noteworthy improvements introduced successfully by banks in the last few years, it uses extensively in B2C electronic commerce, But it is an high cost means of payment for ecommerce and many virtual shoppers will choice other forms of paying for their purchase (Langford, 2000).

## 4. E-COMMERCE BENEFITS AND CHALLENGES

Many benefits will found when applied E-commerce application using o-line site such as saving time to execute some procedure for example prepare order, payment for order and delivery for goods and special if goods is soft copy, saving cost for when purchased from online site and it generate high revenue for accompany. Other benefits include increase efficiency

## 5. RESEARCH FRAMEWORK

The research framework depends on the sector that applied within, the banking sector acting an important role in an economy to improve stability and increase economic growth. Thus, a special interest in maintaining banking system stability is a critical development in Jordan (Hartmann et al., 2005). The flowing table includes the 15 banks that listed on the Amman Stock Exchange (ASE) in 2013.

**Table 1**  
**Banks that Listed on the Amman Stock Exchange (ASE, 2016)**

Arab Bank
Jordan Islamic Bank
Jordan Kuwait Bank
Jordan Commercial Bank
The Housing Bank for Trade and Finance
Arab Jordan Investment Bank
Jordan Dubai Islamic Bank
Bank Al-Etihad
Arab Banking Corporation/(Jordan)
Invest Bank
Capital Bank of Jordan
Societe Generale De Banque-Jordanie
Cairo Amman Bank
Bank of Jordan
Jordan Ahli Bank

## 6. PROBLEM OF THE STUDY

The purpose of this research to find the benefits enjoy and the challenges faced by commercial banks in Jordan in their provision of E-commerce products and services.

## 7. OBJECTIVES OF THE STUDY

The main objective of the research is achieving the following objectives:

- Define the concept of B2C E-commerce as a whole and to identify variable-scale widespread of this concept in the Jordanian banking sector.
- Finding the real situation for the adoption commercial banks in Jordan.
- Provide scientific study of scientific specialists and decision-makers interested in the Jordanian banking industry.

## 8. IMPORTANCE OF THE STUDY

The importance this study came from a scientific and academically analysis the correlation between the variables of the study, and the effect of the independent variable and the dependent variable. The study aspiring to reach some useful results for those involved in decision-making and strategies formulation B2C E-commerce for the adoption commercial banks in Jordan.

## 9. RESEARCH HYPOTHESES

Based on the problem of the study and its objectives and consistent with objective to study border the researcher aimed to test the following hypotheses:

- (H1): There is a statistically significant effect of B2B E-commerce Services on the adoption of the Jordanian commercial banks at  $(0.05 \leq p)$ .
- (H2): There is a statistically significant effect of B2C E-commerce Services on the adoption of the Jordanian commercial banks at  $(0.05 \leq p)$ .
- (H3): There is a statistically significant effect of Reasons for E-commerce Adoption on the adoption of the Jordanian commercial banks at  $(0.05 \leq p)$ .
- (H4): There is a statistically significant effect of E-commerce Benefits on the adoption of the Jordanian commercial banks at  $(0.05 \leq p)$ .

### 9.1 The Study Methodology and Tool

The researcher depend on the descriptive analytical approach, as one of the research methodology adopted in the behavioral and social sciences, that examine the

sources and references relevant variables of the study, a self administrated questionnaire was developed to explore the relationship between the variables.

The reliability of the questionnaire items have been tested using the Gronbach's Alpha test. Table 2 shows the values of the questionnaire dimensions.

**Table 2**  
**Cronbach's Alpha Coefficients to Test the Stability Study Tool**

Dimensions	Cronbach's Alpha Coefficient
B2B E-commerce Services	0.81
B2C E-commerce Services	0.86
Reasons for E-commerce Adoption	0.88
E-commerce Benefits	0.82
<b>Average</b>	<b>0.84</b>

The Table 2 shows that the total average Cronbach's alpha coefficient (0.84) is accepted.

### 9.2 Population and Sample of the Study

The community total to study consisted from the banks that listed on the Amman Stock Exchange (ASE, 2013); Table 3 shows number questionnaires that have been distributed on the main banks directorate.

**Table 3**  
**The Number Questionnaires that have been Distributed Banks**

Name of the bank	Number of Questionnaires
Arab Bank	13
Jordan Islamic Bank	10
Jordan Kuwait Bank	9
Jordan Commercial Bank	12
The Housing Bank for Trade and Finance	13
Arab Jordan Investment Bank	11
Jordan Dubai Islamic Bank	16
Bank Al-Etihad	12
Arab Banking Corporation/(Jordan)	14
Invest Bank	10
Capital Bank of Jordan	15
Societe Generale De Banque-Jordanie	11
Cairo Amman Bank	11
Bank of Jordan	13
Jordan Ahli Bank	15
<b>Total</b>	<b>185</b>

### 9.3 Data Analysis and Hypothesis Test

The Dimension and its mean, slandered deviation, percentage, the degree of approval, and the rank have been explained in Table 4.

**Table 4**  
**Averages and Standard Deviations for Expressive Areas of Study for the Independent and Dependant Variable**

Dimension	Mean	Standard Deviation	Percentage	Degree of Approval	Rank
B2B E-commerce Services	3.673	0.53389	81.5	High	2
B2C E-commerce Services	3.901	0.57656	86.6	High	1
Reasons for E-commerce Adoption	3.150	0.59013	65.0	Medium	4
E-commerce Benefits	4.529	0.46118	78.6	High	3

As shown in Table 4 that the values of arithmetical averages ranged to the degree approval study sample on the areas of variable study independent “B2C E-commerce Services” from (3.901) percentage (86.6%) at its highest for the field, “Reasons for E-commerce Adoption” have the lowest degree of approval, from (3.150) percentage (65.0%) at its lowest for the field.

#### 9.4 Hypotheses Test

To test the first sub-hypothesis of the main hypothesis, the researcher using simple regression analysis test, Table 5:

**Table 5**  
**Result of Regression Analysis to Test First Sub-hypothesis of the Main Hypothesis**

	B	T	Sig.
B2B E-commerce Services	0.0321	0.01	0.01
R2	0.012		
F	0.324		

The Table 5 that the B2B E-commerce Services and exercise a significant impact on the adoption of the Jordanian commercial banks and shows through F value of amounting (0.324), a value that is significant at the level of 0.05, which also shows the significance model. From the previously we are able to accept the hypothesis, which states: There is a statistically significant effect of B2B E-commerce Services on the adoption of the Jordanian commercial banks at  $(0.05 \leq p)$ .

To test the second sub-hypothesis of the main hypothesis, the researcher using simple regression analysis test, Table 6:

**Table 6**  
**Result of Regression Analysis to Test the Hypothesis Second Sub-hypothesis of the Main Hypothesis**

	B	T	Sig.
B2C E-commerce Services	0.757	8.478	0.000*
R2	0.241		
F	73.849		

The Table 6 to that B2C E-commerce Services exercise significant influence the adoption of the Jordanian commercial banks through F value of amounting (73.849), a significant value at the 0.05 level, which also shows the significance model. From the previously we are able to accept the hypothesis which states: There is a statistically significant effect of B2C E-commerce Services on the adoption of the Jordanian commercial banks at  $(0.05 \leq p)$

To test the third sub-hypothesis of the main hypothesis, the researcher using simple regression analysis test, Table 7:

**Table 7**  
**Result of Regression Analysis to Test the Hypothesis Third Sub-hypothesis of the Main Hypothesis**

	B	T	Sig.
Reasons for E-commerce Adoption	0.863	12.839	0.000*
R2	0.431		
F	134.83		

The Table 7 to that Reasons for E-commerce Adoption exerts significant effect on the adoption of the Jordanian commercial banks is shown by the value of F (134.83), a significance value at the 0.05 level, which also shows the significant model. From the previously we are able to accept the hypothesis which states: There is a statistically significant effect of Reasons for E-commerce Adoption on the adoption of the Jordanian commercial banks at  $(0.05 \leq p)$ .

To test fourth sub-hypothesis of the main hypothesis, the researcher using simple regression analysis test, Table 8:

**Table 8**  
**Result of Regression Analysis to Test the Hypothesis Fourth Sub-hypothesis of the Main Hypothesis**

	B	T	Sig.
E-commerce Benefits	1.114	8.5554	0.000*
R2	0.264		
F	72.167		

The Table 8 that the E-commerce Benefits have a significant effect on the adoption of the Jordanian commercial banks and it shows through the value of F (72.167), a significance value at the 0.05 level, which also shows the significant model. From previously we are able to accept the hypothesis; there is a statistically significant effect of E-commerce Benefits on the adoption of the Jordanian commercial banks at  $(0.05 \leq p)$ .

## RESULTS AND RECOMMENDATIONS

### Results

Based on the analysis of data the study found the following results:

- The study revealed the existence of a strong relation between the B2C E-commerce Services and the adoption of the Jordanian commercial banks, because of the existence of attention for B2B E-commerce Services at the Jordanian banks.
- The study sample agreed that the B2C E-commerce Services have a practical significant impact on the efficiency and effectiveness of the banks.

### Recommendations

The study recommends the spreading the culture of E-commerce and support of senior management at the Jordanian banks have put the ambitious plans that represent the vision and fulfilling its internal E-commerce

mission. The E-commerce must work on the review as an ongoing commercial process to lever the performance of the Jordanian banks.

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## CONCLUSION

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Based on the results from data analysis, findings and discussions above the study conclude that commercial banks in Jordan must appreciate the E-commerce as evidenced by its wide adoption.

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